

In the claims:

Claims 1-8 cancelled.

9. (currently amended) A centrifugal pump, comprising a housing which is disclosed in a fluid-and gas-tight fashion except for at least one inlet opening and at least one outlet opening; a pump rotor located inside said housing rotatably and being simultaneously a rotor of a drive motor, said rotor being hollow and having an inlet at an intake side for entering a fluid into the rotor and an outlet for leaving the fluid from the rotor so that the fluid flows through the rotor, said rotor having at least one permanently magnetized region; one stator located outside said housing, above and below said rotor, so that said stators in a gap between said stators and said permanently magnetized region of said rotor, generate a magnetic flux, said rotor being arranged symmetrically to its central plane and having an upper and a lower covering, an element selected from the group consisting of said rotor, said housing and both being shaped such that axial spaces between said upper and lower coverings and an upper and a lower housing wall decrease continuously radially inwards, in such a manner that in a radially inner region of said rotor, rotor side chambers each have one throttle gap which in operation affect a radially inwards-oriented backflows in said rotor side chambers such that upon an axial deflection of said rotor, different pressure distributions occur above and below said rotor, as a result of which forces acting on a predominant surface area of said coverings

are generated which effect an axial stabilization of said rotor and are operative in a same way against tilting of said rotor in said housing; and ~~said upper and lower coverings of said rotor having blades being disposed therebetween~~ between said upper and lower coverings inside the rotor, outer surfaces of said upper and lower coverings being smooth.

10. (previously presented) A centrifugal pump as defined in claim 9, wherein said rotor of said drive motor has a plurality of magnetized regions distributed uniformly over its circumference.

11. (previously presented) A centrifugal pump as defined in claim 9, wherein said rotor is arranged so that a radial centering of said rotor is effected passively by reluctance forces.

12. (previously presented) A centrifugal pump as defined in claim 9, wherein said rotor is composed entirely of a material selected from the group consisting of a paramagnetic material, a ferromagnetic material, and both.

13. (previously presented) A centrifugal pump as defined in claim 9, wherein parts of the centrifugal pump are configured so that at least their surfaces that are in fluid contact are provided with a coating adapted to properties of a fluid.

14. (previously presented) A centrifugal pump as defined in claim 9, wherein the centrifugal pump is configured as a blood pump that is implantable in a body.

15. (previously presented) A centrifugal pump as defined in claim 9, wherein said centrifugal pump is configured as a pump for blood in cardiac substitution or assist devices.